

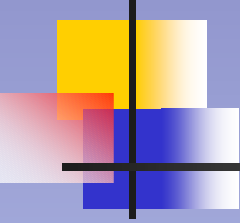


# PROCRASTINATION: THE DIRTY SECRET ABOUT SMOG CHECKS

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June 27, 2006



## Three basic questions about procrastination:

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1. How many Californians postpone having their vehicles smog-checked until after their re-registrations are due?
2. Are those late smog checks disproportionately “fails”?
3. Are fails often corrected late, after the due date for re-registrations?

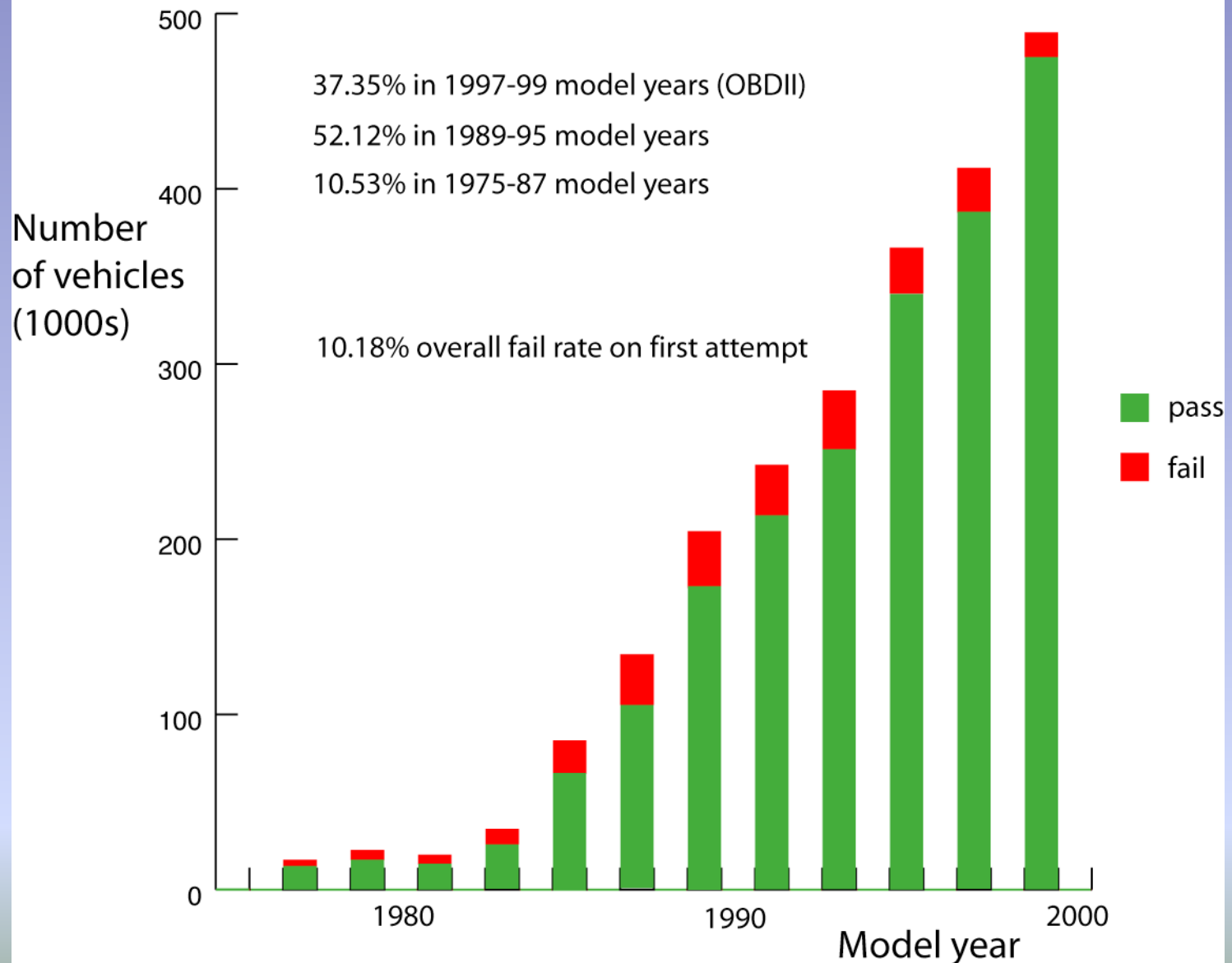


# Sample of re-registrations

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- Re-registrations due January-June 2005
- A pass must be observed within 90 days before and 180 days after re-registration due date (ASM test)
- If code C for change-of-ownership, vehicle not considered
- Odd-year model years, 1975-1999
- 2,306,441 vehicles considered here
- 60% due for a Smog Check in 2005, otherwise 2004

# Age profile of the vehicles in the sample





# Example of a vehicle's test dates

(an early pass)

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VIN JT2SV24E2K3359825

CA plate 2MPL166, '89 Toyota Camry

Registration due February 8, 2005

Station	Date and time	Mileage	Type	Result
■ TG206070,	1/18/2001,16:36,	137241,	C,	P
■ TG206070,	1/13/2003,16:36,	155442,	P,	P
■ TG206070,	1/28/2005,16:36,	174516,	P,	P

Pass certificate first attempted 11 days early

Pass certificate achieved 11 days early



# Another vehicle's test dates

(an early fail, late pass)

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VIN JT2SV24E1K3363803

CA plate 2MXB241, '89 Toyota Camry

Registration due March 8, 2005

Station	Date and time	Mileage	Type	Result
■ TB232243,	3/05/2005,10:48,	346037,	P,	F
■ RM225536,	3/26/2005,09:56,	346078,	Q,	A
■ RM225536,	3/26/2005,10:15,	346078,	Q,	P
■ TB232243,	3/26/2005,10:44,	346086,	P,	P

Pass certificate first attempted    3 days early

Pass certificate achieved            18 days late



# Another vehicle's test dates

(an early fail, early pass)

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VIN JT2SV24E1K3375420

CA plate 2NYL012, '89 Toyota Camry

Registration due June 12, 2004

Station	Date and time	Mileage	Type	Result
■ TJ217900,	4/05/2004,16:38,	238491,	P,	F
■ TJ217900,	6/11/2004,16:04,	241131,	P,	P

Pass certificate first attempted 67 days early

Pass certificate achieved 1 day early



# Another vehicle's test dates

(an early fail, early pass)

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VIN JT2SV24E1K3369990

CA plate 2MYN189, '89 Toyota Camry

Registration due April 26, 2005

Station	Date and time	Mileage	Type	Result
■ TB237822,	5/11/2005,11:41,	199114,	P,	F
■ TB237822,	5/13/2005,13:37,	199223,	P,	P

Pass certificate first attempted 15 days late

Pass certificate achieved            17 days late





# Another vehicle's test dates

(a late fail, late pass)

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VIN JT2SV24EXK3382592

CA plate 2NMZ242, '89 Toyota Camry

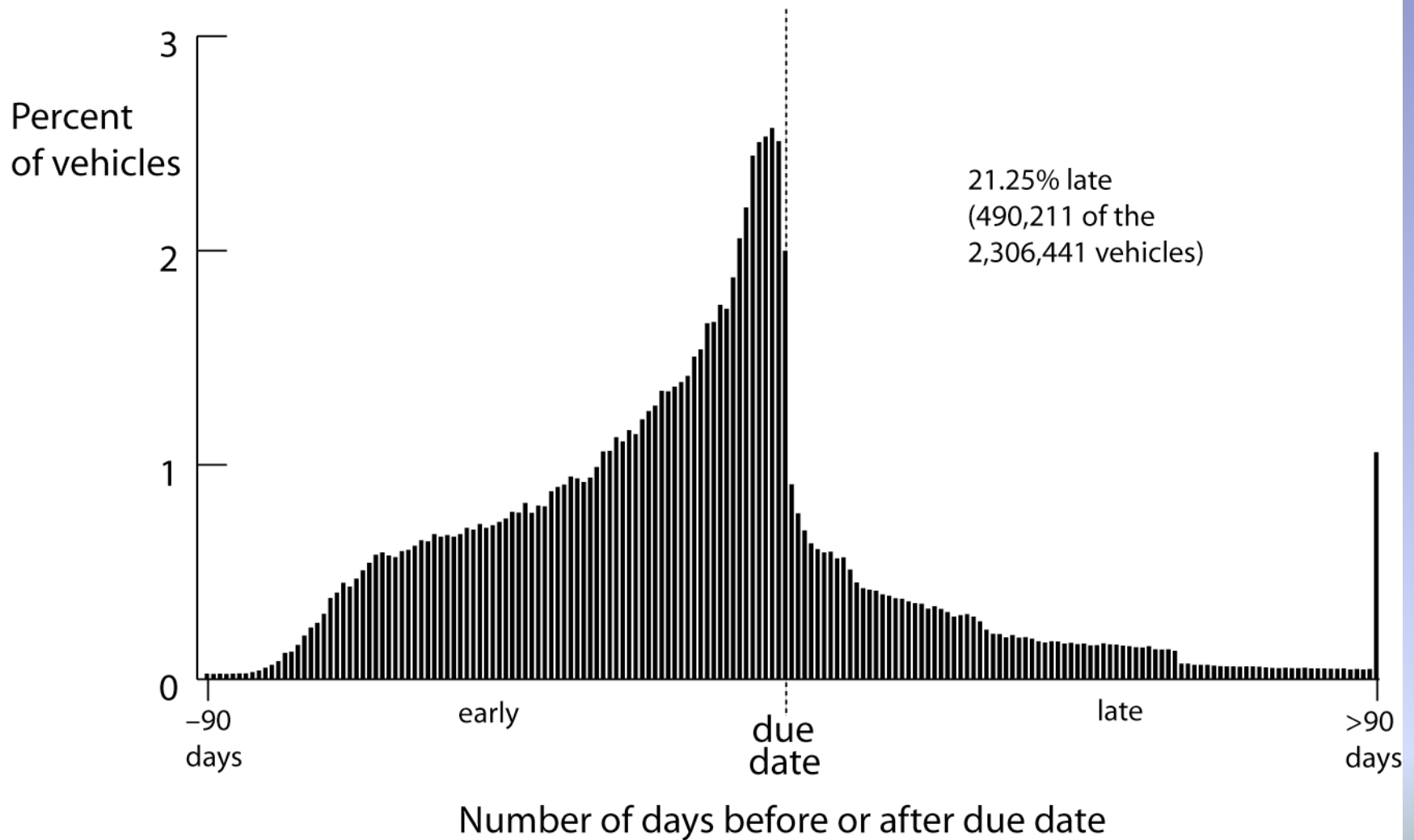
Registration due June 8, 2005

Station	Date and time	Mileage	Type	Result
■ TB226429,	9/20/2005,15:30,	201284,	P,	P

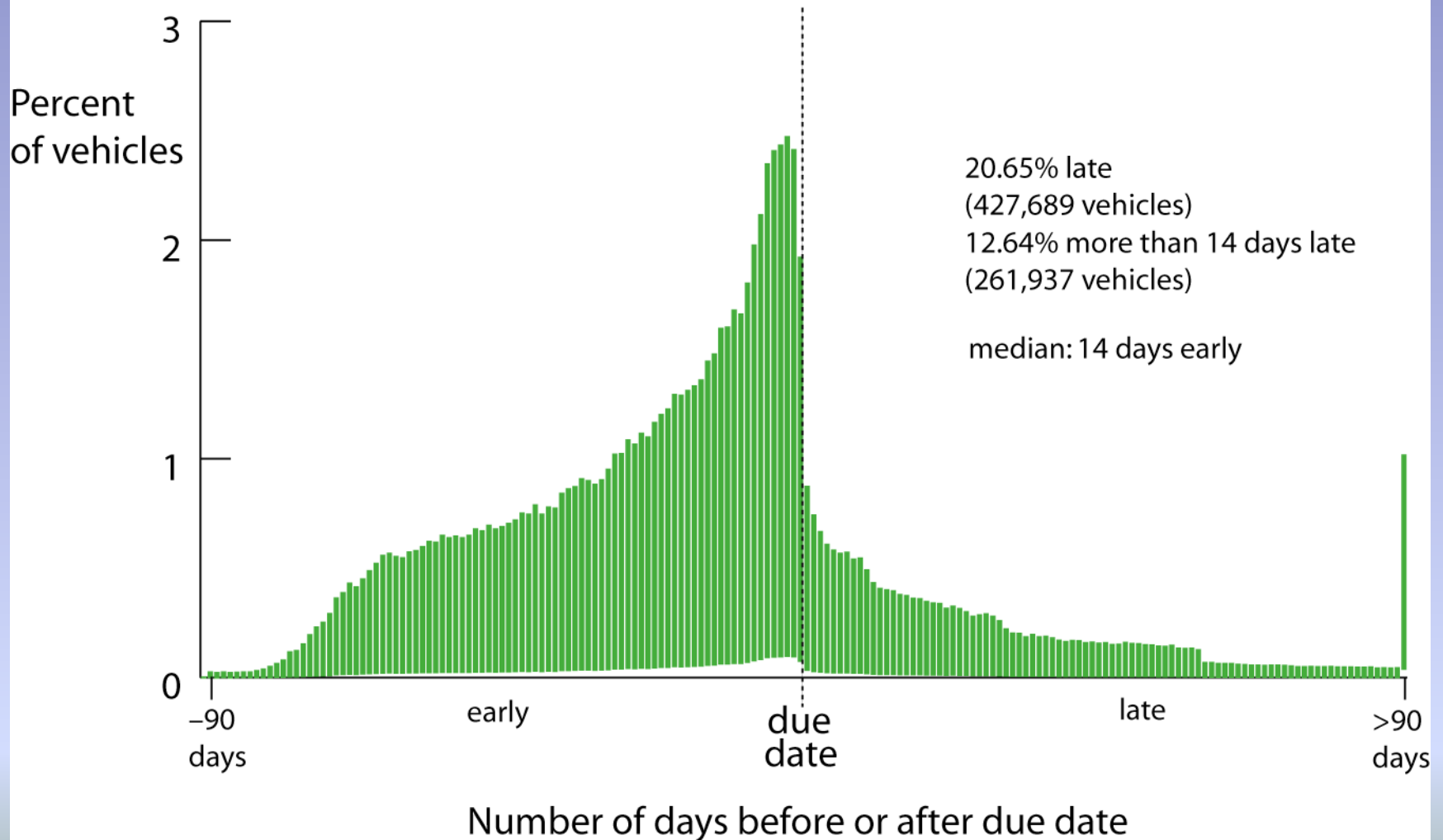
Pass certificate first attempted 104 days late

Pass certificate achieved            104 days late

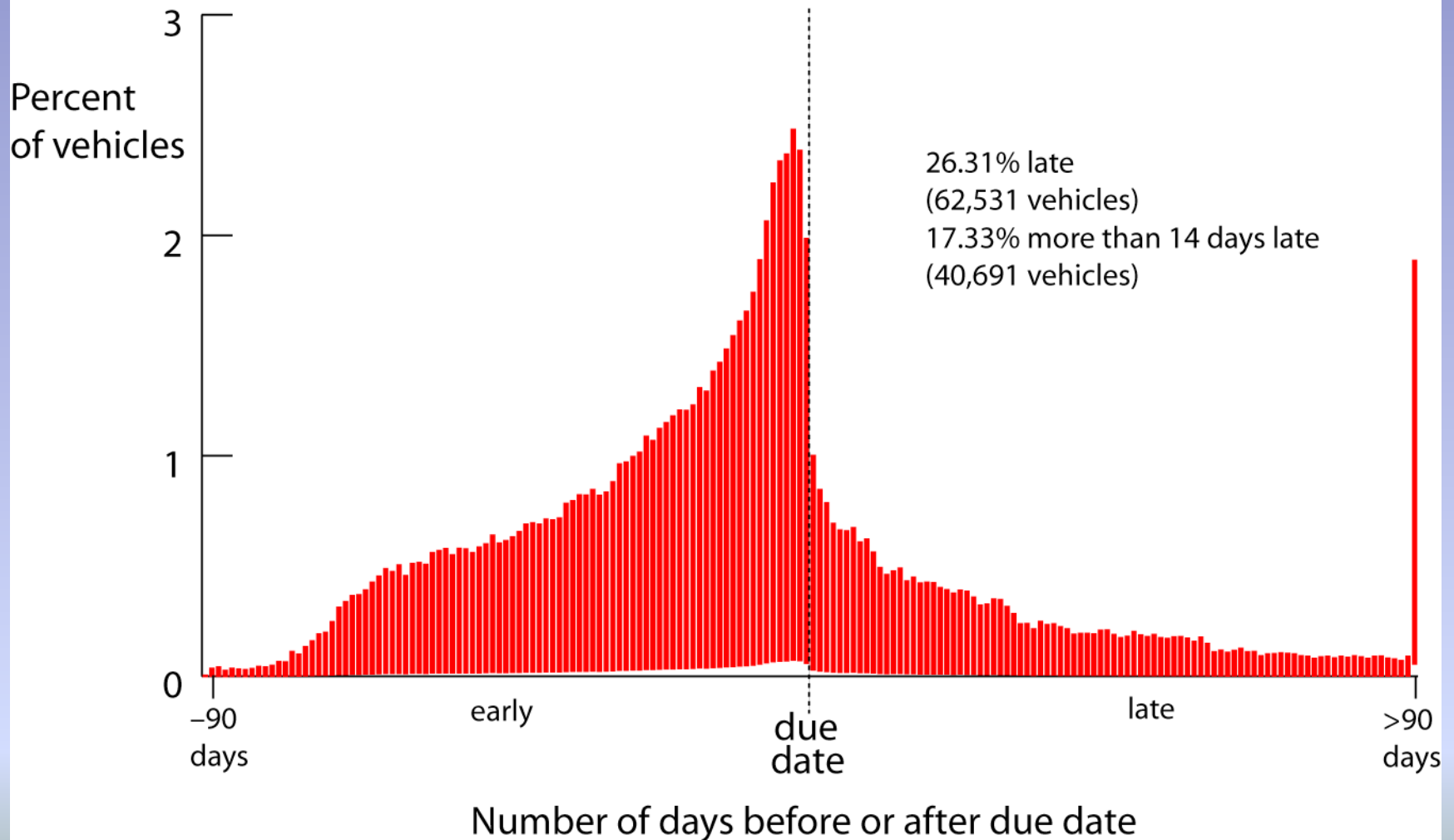
# Time of first certification attempt relative to registration due date



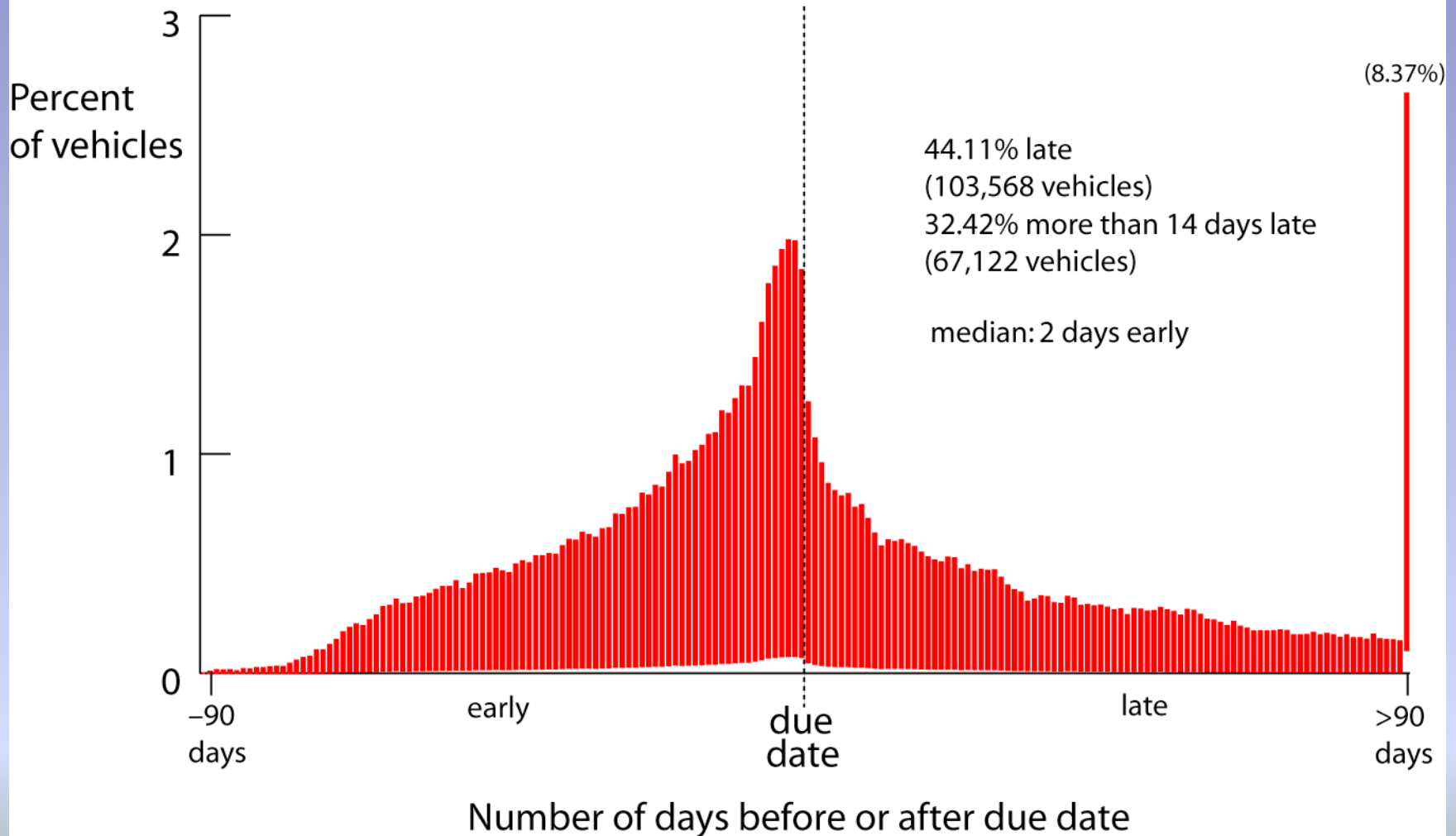
## Time of first test relative to registration due date if result was a pass (2,071,635 vehicles)



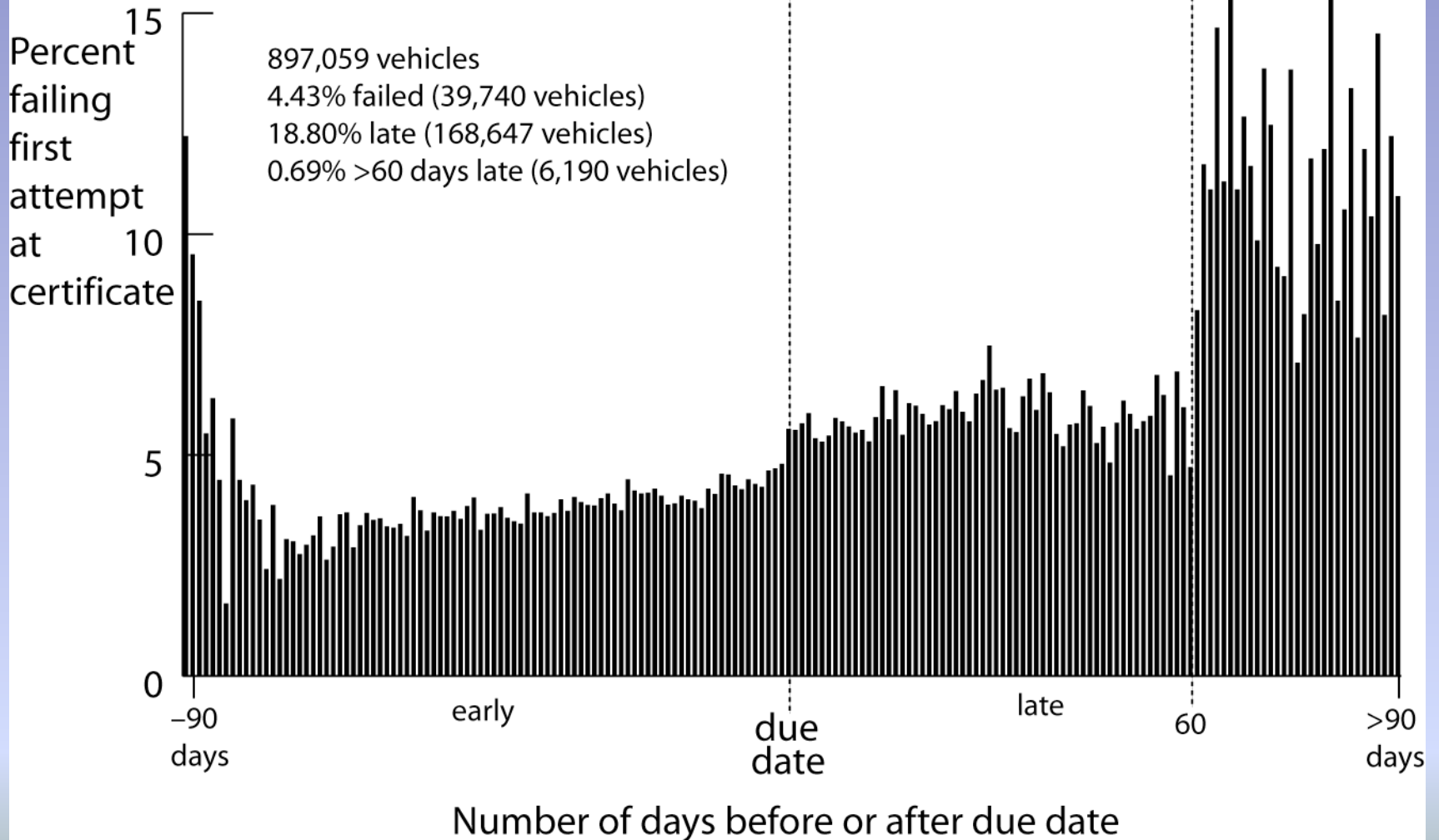
## Time of first test relative to registration due date if result was a fail (234,806 vehicles)



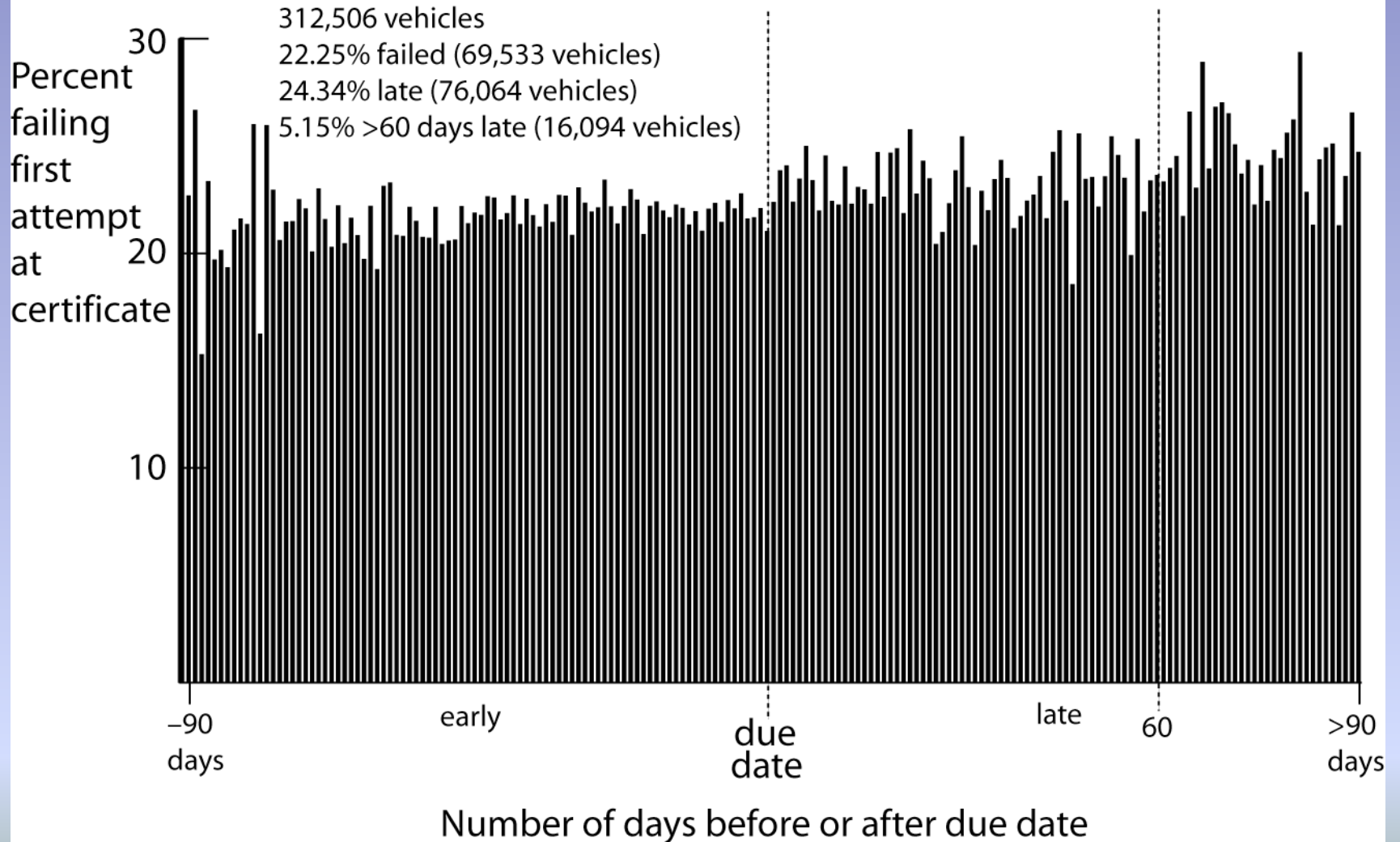
## Time of ultimate pass relative to registration due date if result of first test was a fail (234,806 vehicles)



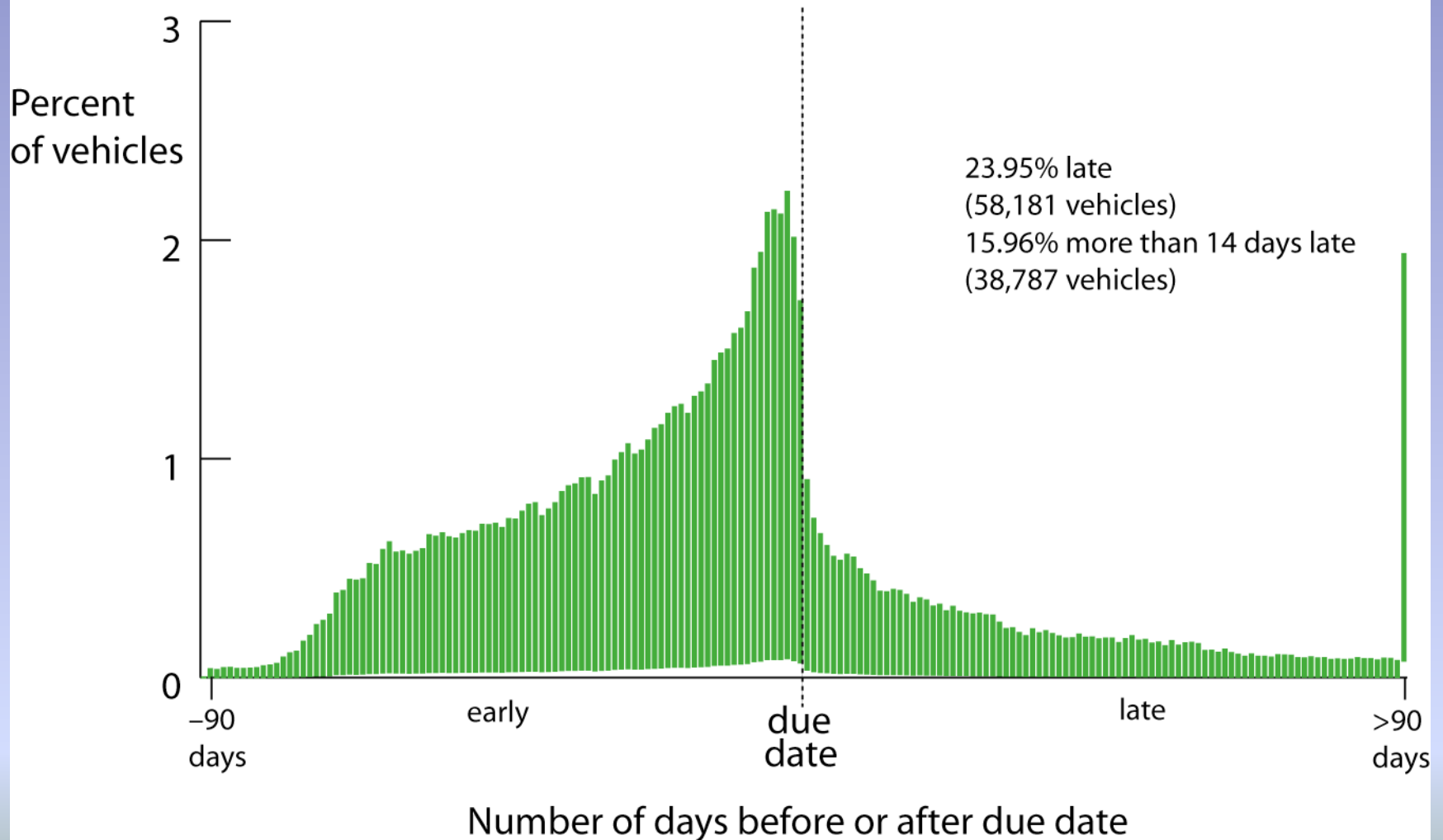
## Fail rate by day for 1997 and 1999 model years



## Fail rate by day for 1975-87 model years

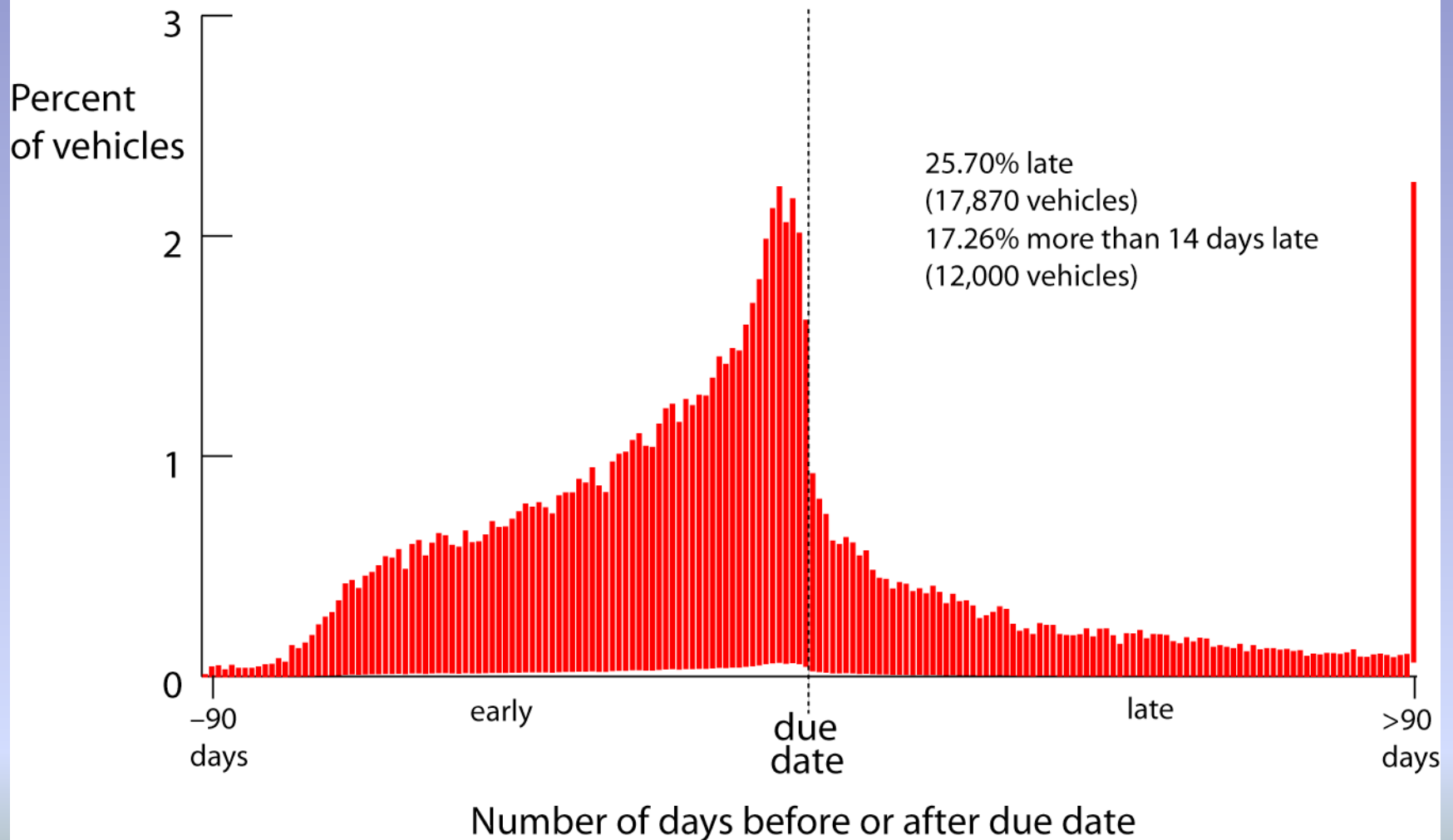


# Time of first test for 1975-87 model years if result was a pass (242,966 vehicles)

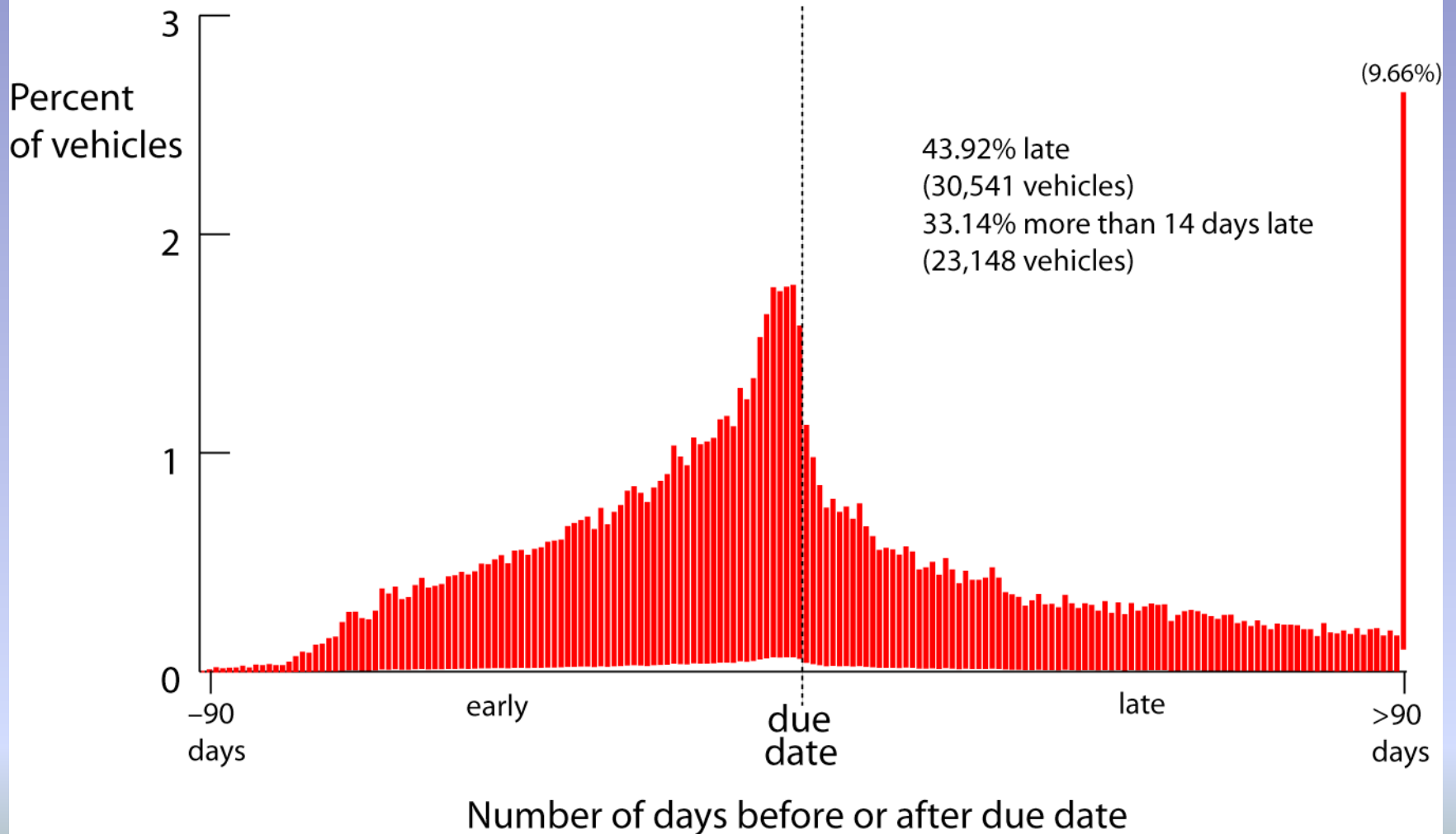




## Time of first test for 1975-87 model years if result was a fail (69,540 vehicles)



## Time of ultimate pass for 1975-87 model years if result of first test was a fail (69,540 vehicles)



# Procrastination by age of vehicle

Model year	% late	% >14 days late	Late fails as % of fails	% of fails repaired late
1977	23.73	15.90	24.36	40.93
1979	23.68	15.68	23.80	41.26
1981	22.67	15.10	22.36	40.90
1983	24.34	16.39	24.69	43.21
1985	24.03	15.99	25.73	44.38
1987	24.95	16.67	26.94	45.07
1989	24.08	15.79	27.12	43.78
1991	22.87	14.70	27.54	44.35
1993	22.24	14.24	27.26	44.50
1995	21.23	13.00	28.01	44.72
1997	19.32	11.23	26.17	44.91
1999	18.35	10.24	24.76	41.63

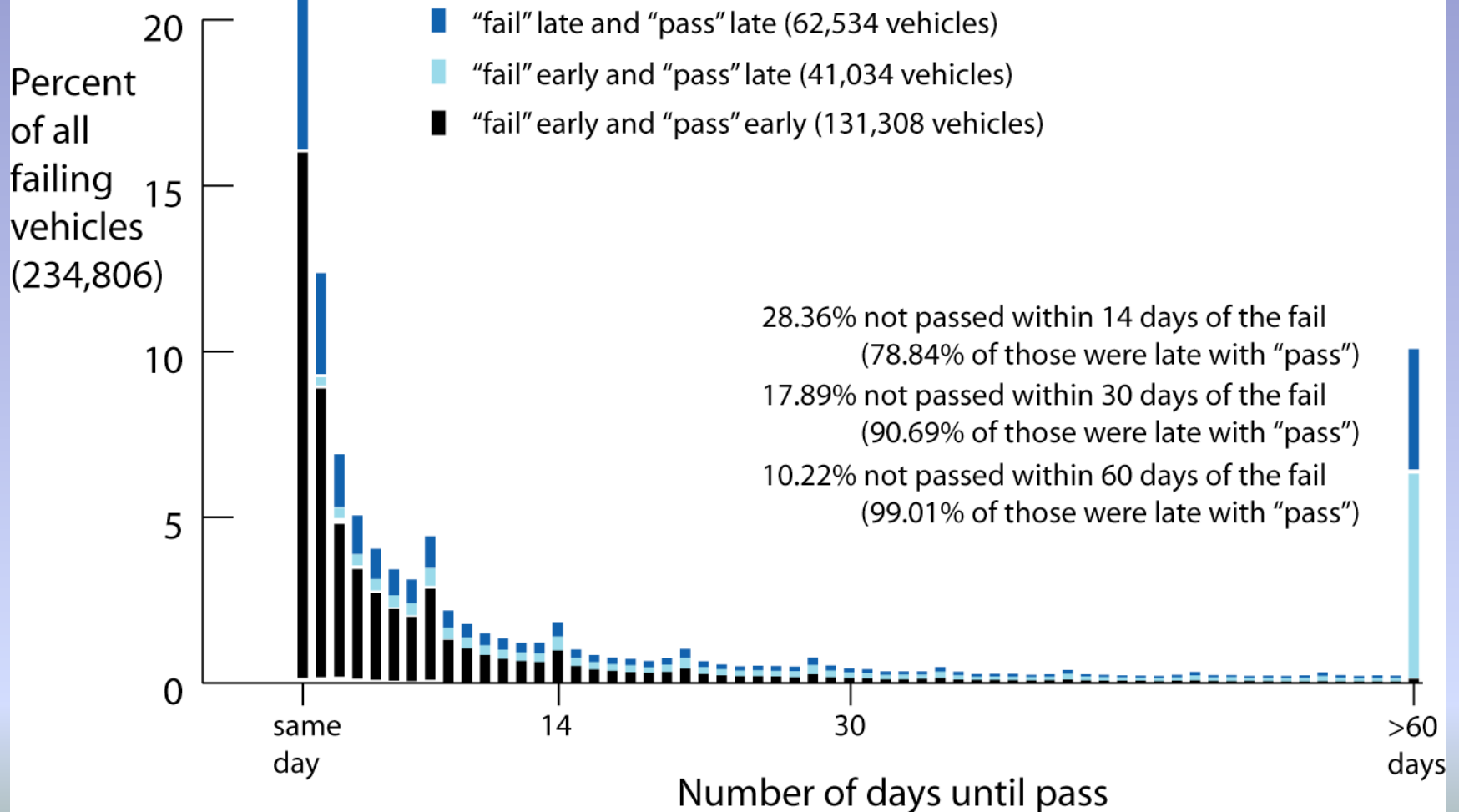
# Procrastination by type of vehicle

'97 Hondas	20.00	11.92	31.23	49.57
'87 Hondas	28.04	18.97	29.90	49.80
'97 Volvos	19.07	11.45	28.32	57.71
'87 Volvos	26.06	17.71	27.93	48.93
'97 VWs	24.25	14.71	28.21	49.61
'87 VWs	30.87	21.42	29.23	50.27
'97 GM trucks	21.33	12.13	27.38	45.24
'87 GM trucks	25.32	16.27	26.38	42.61

# Procrastination by place of test

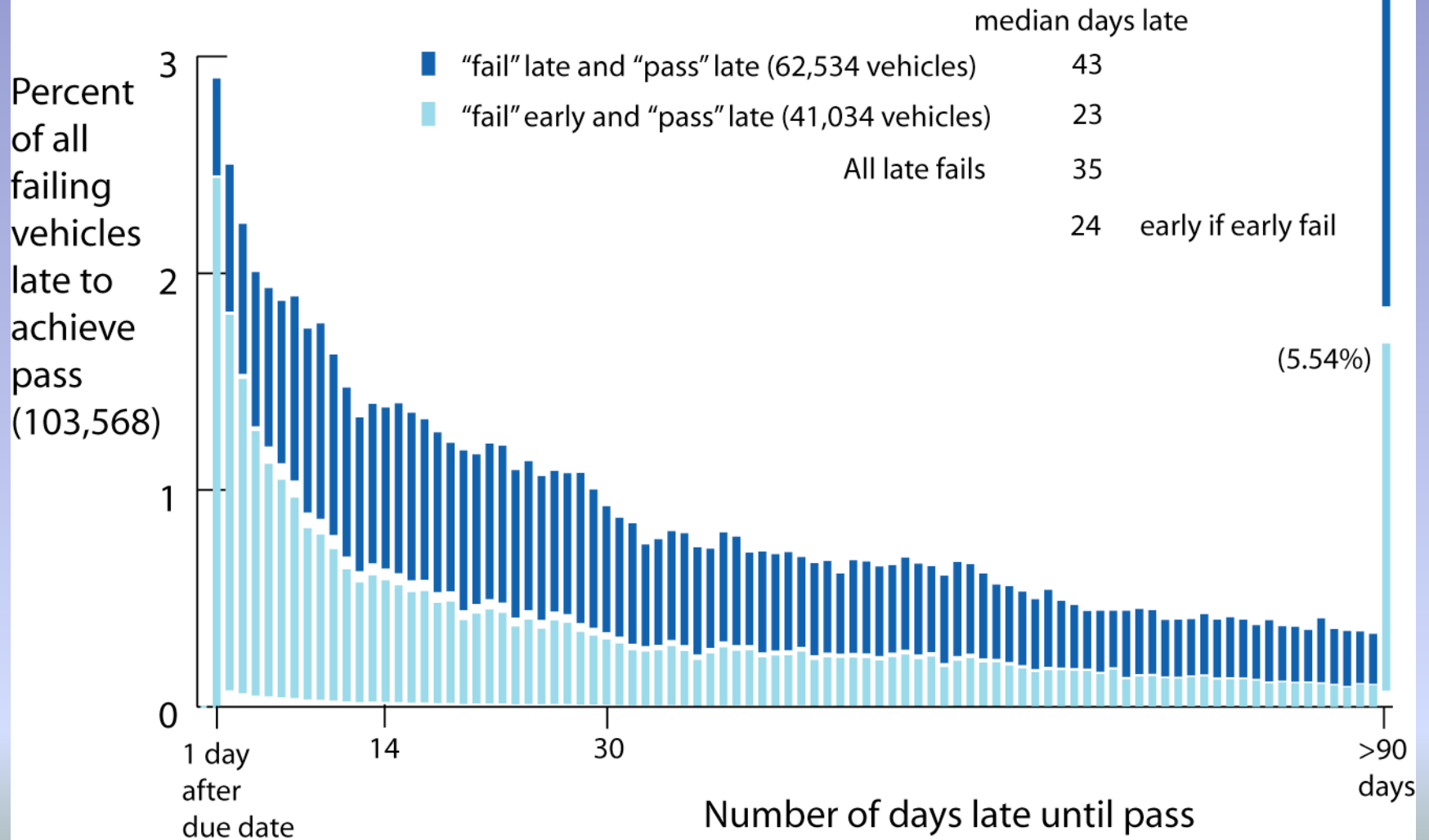
Test style	% late	% >14 days late	Late fails as % of fails	% of fails repaired late
'97s directed	22.18	14.29	31.28	52.60
'97s volunteer	20.12	11.31	26.04	46.26
'97s test&repair	17.46	9.62	22.34	38.19
'87s directed	25.67	17.48	27.60	46.13
'87s volunteer	22.27	12.96	20.44	35.43
'87s test&repair	19.75	11.15	19.80	32.69

## Time elapsed for "fails" to achieve "pass"



# The extent late "fails" are late

(13.44%)





## Extent late by type of fail

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	# Late	Number Median Days
Gross polluter (G)	22,840	44
Tampered (T)	5,886	34
Fail (F)	74,842	31

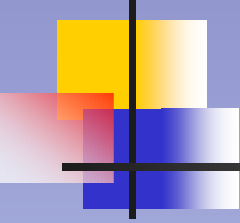




# Mileage of late fails

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	Median Monthly Mileage
All those late to achieve pass	574
Gross polluter	422
Tampered	497
'97 – '99 vehicles	936
'75 – '87 vehicles	305
> 30 days late	543
> 60 days late	528



# Answers to the three basic questions about procrastination

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1. Many Californians (some 20%) are late with biennial smog checks.
2. Those whose vehicles fail are slightly more likely to be late for their initial test.
3. Close to half of failed vehicles are not passed by the re-registration due date, most of these more than 30 days late.



# Yet more questions about procrastination over smog checks

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- Are the same Californians procrastinating on other biennial smog checks, whether for their same or their other vehicles?
- Which Californians are late with the re-registration fee itself?
- Does a vehicle failing in one biennial cycle encourage or discourage its owner from procrastinating during the next cycle?
- How does the EMFAC emission model account for the pollution resulting from procrastination?